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NOTICE

Non-Fellows may obtain the Proceedings for the current year, including each part for the Session as published, by prepayment of 10s. 6d. post-free.

'Prodrome de la Flore Corse', the outcome of a number of botanical visits to the island, and characterized by the same critical methods of study. Biology, morphology, and anatomy were combined with taxonomy in his botanical publications, which numbered about four hundred.

The thesis for his Dr. ès Sciences at Geneva in 1891 was a monograph of the genus *Galeopsis*, which gained a prize from the Belgian Académie des Sciences et Beaux-arts, and was published in their 'Recueil des Mémoires couronnés'. This was the first of a long series of studies on the Labiatae, which included the account of the family in Engler's 'Pflanzenfamilien'. Briquet also specialized in the Verbenaceae and other allied families. Many of his botanical contributions appeared in the 'Annuaire du Conservatoire et du Jardin Botaniques de Genève', which he started in 1897 and edited continuously until his death; in 1922 the name was altered to 'Candollea'.

Briquet's original contributions to the sum of botanical knowledge were sound, thorough, and often eminently suggestive, but he will perhaps best be remembered for his unrivalled services towards the elaboration of a code of rules of botanical nomenclature which should be generally acceptable to working botanists. The crowning effort at the International Botanical Congress at Cambridge in 1930, when the International Rules promulgated at Vienna (1905) and Brussels (1910) were discussed by a large and representative assembly of taxonomists and an emended code was drawn up, is recent history. But Briquet's work began thirty years before, when, in 1900, at the Paris Congress, he was appointed Rapporteur Général of an International Commission of Botanical Nomenclature which should report to the next Congress. This Report took the form of a voluminous set of proposals based on a detailed synopsis drawn up by Briquet. The well-known 'Vienna Rules', founded on the De Candollean Code of 1867, were the outcome of the deliberations of the Congress of 1905, and to Briquet fell the work of drafting. Supplementary discussions at Brussels in 1910 involved further work of preparation and editing, while preparation for the recent Congress was made more onerous by the decision to reconsider the Rules as a whole. The acknowledged success of the effort to achieve unanimity was a tribute to the devotion, tact, and knowledge of detail of the Rapporteur, and it is a matter of deep regret that he did not live to prepare the draft of the amended code of Rules. His death after a very brief illness is a serious loss.

The conferment of the D.Sc. *honoris causa* by the University of Cambridge during the Congress was an appropriate and well-earned recognition of his services to botany. Other

marks of appreciation of his work were the Honorary Foreign Membership of our own Society, of the American Academy of Arts and Sciences (Boston), and of many European scientific societies. He was Secretary of the Union Internationale des Sciences Biologiques from its commencement until 1928, when he was elected Vice-President, from 1912-21 President of the Swiss Botanical Society, and since 1921 President of the Institut National of Geneva, which he had previously served as Secretary. He also held the rank of Captain of Infantry in the Swiss army.

During a trip to Morocco in 1928 he met with a severe accident which partially crippled him, but his friends who welcomed him with his wife and daughter at the Cambridge Congress in the autumn of 1930, though missing some of the old familiar brisk physique, visualized for him a further period of useful botanical work when freed from the onerous responsibilities of the Section of Nomenclature. His untimely death, at Geneva on 26 October 1931, removes a true patriot and citizen, a capable and far-seeing organizer, a painstaking and versatile botanist, and a devoted husband and father. And in this the writer would pay a tribute to a friendship and association of more than thirty years standing.

A. B. RENDLE.

THOMAS FORD CHIPP (1886-1931) was the second son of Edward Thomas Chipp, Chief Constable of Gloucester, where he was born on New Year's Day 1886. After the death of his father, when he was but five years of age, his mother took her little family to Kington in Herefordshire, where he spent his childhood amid country sights and country sounds. The Freemasons had undertaken his education, and in 1894 he was sent to the Royal Masonic School at Bushey.

At Bushey, among the masters set to watch the growth of his knowledge and the forming of his character were two whose names must be mentioned: the Headmaster, the Rev. H. A. Hebb, and one of the Assistant Masters, the Rev. A. C. Knight, afterwards Headmaster of Derby School. Of Chipp at school the first-named has written,—‘he developed a remarkable power of influencing others, never by physical force, but simply by appeal, and so reasonably that the masters got into the habit of entrusting much of the leading of the boys to him’. The second of these two masters recognized his interest in nature, took him to Kew, which proved a great inspiration, saw him start and become secretary of a school Natural History Society, and persuaded him to sit for a South Kensington Certificate in Botany, sitting himself by way of encouragement. The gaining of this certificate made the direction of Chipp's career certain.

He left school in 1904, and a wage had then to be earned, to get which he took service in the garden of Sion House, Isleworth. This enabled him to obtain the two years of practical training which an applicant for the post of 'Young Gardener' on the staff of the Royal Botanic Gardens, Kew, must have had.

During those two years he volunteered as a Territorial,—naturally in the 8th Middlesex regiment which has its headquarters at Hounslow.

He was admitted to Kew on 2 April 1906.

Golden opinions expressed by his teacher in Systematic Botany brought about his transfer on 17 September from the horticultural side to the Herbarium, where he worked until 10 October 1908, preparing himself by evening classes for the degree of B.Sc. in the University of London. During the winter of 1907-8 he wrote his first scientific paper, 'A revision of the genus *Codonopsis*' ('Journ. Linn. Soc., Bot.', xxxviii, 1908, pp. 374-91). From 10 October 1908 he was enabled to devote his whole time to preparation for the coming examination, and joined Birkbeck College as a student. The examination fell in the autumn of 1909, and he obtained his degree. Shortly before this he had been chosen to be Demonstrator in Botany in the College, and a little earlier (16 April) he had been gazetted Captain in his regiment.

In 1910 he was offered service in the Forest Department of the Gold Coast Colony, and accepting it, resigned his Demonstratorship. He was then sent to Germany to see controlled forests and to the Federated Malay States to see forest surveys in a preliminary stage, after which he took up his appointment in West Africa, where, as an official memorandum subsequently recorded, the duty of the staff upon which he had been placed was 'to make a thorough inspection of the forests of the Gold Coast Colony and Ashanti, earmarking areas suitable for reservation against the time when authority would be given to constitute such areas Reserved Forest'; to Chipp, 'whose knowledge and love of Botany marked him as the most suitable person', was given the congenial duty of identifying the components of the forests. He travelled and collected, sending his collections to Kew; and leave being liberal, on account of the unhealthiness of the Coast, he was able to return to Kew in 1912 and in 1914 to work at them.

In 1913 the Colony published his 'List of trees, shrubs and climbers of the Gold Coast, Ashanti and the Northern Territories' (56 pages), and in 1914 his 'List of the herbaceous plants and undershrubs' (58 pages).

The year 1914 brought a change and then a break in his work. As far back as 1887 the Governments of the Straits

Settlements and the Federated Malay States had taken their first step towards the preparation of a Flora of the Malay Peninsula, by setting aside funds for the cost of the printing. Sir Joseph Hooker and Sir George King were to write the book, which, it was supposed, would deal with the higher plants only. Sir Joseph Hooker, however, drew back, Sir George King deemed it best to confine his work to 'Materials for a Flora', and it came about that the writing of the proposed Flora was not taken in hand until in 1912 an officer of long experience in Malaya, Mr. H. N. Ridley, had leisure to do it in retirement. Whereupon, having seen the work commenced, the Government of the Straits Settlements, with the intention of extending the Flora to the lower plants, created in 1913 a post of Assistant Director of Gardens; and the Secretary of State for the Colonies offered it to Chipp in 1914. He accepted it, and his passage to Singapore had been taken when the Great War broke out.

He had remained an officer of the 8th Middlesex, putting in his training during periods of leave; he joined up immediately and went into barracks on the heels of the British Expeditionary Force. The 8th Middlesex was the first regiment outside the Regular Army to be ready for overseas service, and was sent to Gibraltar at once, and in 1915 to France. In 1915 he was Captain and Adjutant of this regiment; in 1916 Staff-Captain in the 167th Brigade; in 1917 Major and D.A.Q.M.G. of the 56th Division. He received the Military Cross in 1916. He was once wounded.

As soon as possible after the War was over the Government of the Straits Settlements procured his release from military duties, and he joined his post in the Colony in July 1919, when to the writer of this notice it seemed evident that the strain of the previous years had told greatly on him.

For parts of the years 1919 and 1920 he acted as Director of Gardens, Straits Settlements, editing, while acting, three parts of the 'Gardens Bulletin'. He prepared 'A list of the Fungi known to occur in the Malay Peninsula' ('Gard. Bull. S. S.' ii, pp. 311-418). This was followed by a short paper on certain timber-destroying fungi (ii, pp. 429-32) and had been preceded by 'A fungus-flora of *Hevea brasiliensis*' (ii, pp. 186-92) and by two instalments of 'A host-index of the Fungi of the Malay Peninsula' (ii, pp. 231-38 and 276-82).

Towards the end of 1920 the Government of the Gold Coast asked him to return, offering to him as Deputy Conservator of Forests such advantages that refusal was impossible; and he became again actively a Forester, as indeed he had been at heart from 1910, and as he remained to his death. Forestry is almost as near to nature as is Botany; it is not

subversive as is Agriculture ; it changes the face of the soil very little, is gentle and coaxes nature ; so is it easier to be both Botanist and Forester than to be both Botanist and Agriculturist. Chipp returned to the botanical study of the Gold Coast forests, and in 1922 issued his 'Forest officers' Handbook of the Gold Coast, Ashanti and Northern Territories'.

Extracting the scientific parts of this, he applied, presenting them as his thesis, for his doctorate, and became a Ph.D. of the University of London. In the same year he accepted the post of Assistant Director of the Royal Botanic Gardens, Kew. He had married in 1919, and this circumstance partially determined his return to Britain ; at the same time he greatly welcomed the new contacts which a central position made for him ; and it is interesting to see how he made use of them.

First of all he completed by three short papers in the 'Kew Bulletin' some African work which he had in hand. Then he accepted other outside responsibilities which may be classed under two heads : there was organizing work, sometimes very heavy, which he accepted because it was helpful to Kew, and there was work to which his forestry experience led which he accepted as of his own kingdom ; sometimes by good fortune the two coalesced.

It is traceable throughout his career that he was one who sought the gatherings of men ; and in these gatherings the character which his headmaster had observed would reappear ; but it brought upon him an abundance of work, which he shouldered ungrudgingly. In 1924 (7 to 16 July) the Imperial Botanical Conference met in London under the presidency of Sir David Prain, and Chipp was upon the Executive Committee. It had seemed to some members of the Committee that the meeting provided an ideal opportunity for discussion amongst the botanists from different parts of the Empire on the very important subject of what could and should be done to advance and consolidate the knowledge of the plants and vegetation which form one of its principal assets. A resolution followed to the effect that a text-book should be prepared for the guidance of those engaged in the study of the vegetation in order that results from different countries might be comparable ; and Chipp, who had taken a considerable part in the discussion and had read a 'Summary of work done in the Crown Colonies, India, etc.', with Professors Oliver and Tansley and Mr. J. Ramsbottom were elected a committee to which the work was entrusted. The Committee chose its own officers and made him secretary. They produced in 1926 the desired manual under the title of 'Aims and Methods in the Study of Vegetation' (pp. xvi+383). Most of the organizing, much of the writing, and a

double portion of proof-reading (in consequence of a disastrous fire at the printers when the first edition was already bound) had fallen upon him. The book has a nucleus by Tansley and Chipp more or less adapted from Clements' 'Plant Succession', followed by special articles by eleven other writers.

In 1925 at the Southampton meeting of the British Association he read a paper entitled 'The value of an Arboretum' ('Report', 1925, p. 370).

In 1923 he had become connected with the Empire Forestry Association, and was a member of the Publications Committee, his name appearing in review-articles in the 'Empire Forestry Journal'. His paper to the British Association was rewritten and printed in the Journal for 1925. In 1924 he was elected to the Council, in 1927 to the Vice-Presidentship, and from 1929 was Chairman of the Publications Committee.

In 1926 he was elected to the Council of the Association of Economic Biologists, and when at the end of that year the Honorary Secretary resigned he consented to take his place, and held it for one year.

In 1928 he obtained the degree of D.Sc. of the University of London. In 1929 he was elected to the Council of the Linnean Society.

In 1927 he published in the 'Oxford Forestry Memoirs' (as no. 7) his book entitled 'The Gold Coast Forest, a study in Synecology' (94 pages).

This book seemed to close one chapter in his work, and another was opened immediately by the extending of his personal knowledge to adjacent parts of Africa, for in the winter of 1928-9, at the instance of the Empire Marketing Board, he went to the Egyptian Sudan, and in the spring of 1930 to the Central Sahara. The information collected on these journeys, in so far as it was pure botany, he reserved for the Kew Bulletin; that which had a bearing upon the activities of man he offered to other journals. The first tour was described in the 'Empire Forestry Journal' (viii, 1929, pp. 37-44) and in the 'Geographical Journal' (lxxv, 1930, pp. 123-43), while some of the results of the second were printed in the journal just mentioned (lxxvi, 1931, pp. 126-37) and in the 'Scottish Geographical Magazine' (1931, pp. 193-214). He was greatly interested in the destructiveness of primitive man in countries where the vegetation with difficulty supports adverse climatic conditions.

In 1929 he had been chosen a joint secretary for the Fifth International Botanical Congress, to be held in Cambridge. This entailed very heavy work, in which, as his colleague Mr. Brooks has recorded, 'he never spared himself; nothing was too much trouble for him. His great organising ability, his capacity for looking ahead, and his attention to detail were

of supreme value. His promptitude was amazing.' The Congress closed officially on 23 August 1930, after which the 'Report of the Proceedings' had to be prepared and an 'Address-book' for botanists throughout the world compiled. He had almost reached the end of these duties when his sudden death came.

He had been away from home for two nights, had returned on the Sunday evening to resume his ordinary duties on the following morning, when his heart failed, and he died, apparently with no premonition that his life was in danger, on 28 July 1931.

He was among the most loyal of men, very thorough, very tolerant, very patient, and in a most remarkable way fitted to be an ambassador to the gatherings of botanists.

I. H. BURKILL.

By the death of GEORGE CLARIDGE DRUCE (1850-1932) on 29 February 1932 British field botany has lost its best known figure. For many years he was regarded by a large circle of amateur botanists as the recognized authority and court of appeal on all matters relating to our flora. Full of energy almost to the last, no journey was too much for him if a new plant record was to be made or confirmed, and he had seen more British plants in their habitats than any other botanist of his time. He was accustomed to have his specimens worked over by continental specialists, and in this way added the names of many new forms to our lists. His botanical energy was not confined to field-work, but found a further outlet in numerous books, articles, and notes. Moreover, he was a voluminous correspondent, and to most botanists his handwriting was recognizable at sight; its main characteristic was that it was always open to several interpretations.

Druce was born at Potter's Pury, Northamptonshire, on 23 May 1850. Owing to the early death of his father the family was in somewhat straitened circumstances. He was educated 'privately' at Yardley Gobion by the Rev. J. & T. B. Slye until he was fifteen. He was then apprenticed to a pharmacist at Nottingham, and while applying himself assiduously to his profession made opportunities for studying the local flora, which had always attracted him. At the age of twenty-three he began to form a herbarium; six years later he had saved sufficient money to buy a business in Oxford. It is remarkable that he was so able to make a success of pharmacy while actively studying the British Flora, for during this period he not only wrote 'Notes on the Flora of Northamptonshire', which appeared in the 'Journal of the Northamptonshire Natural History Society' (1880-89), but

paid visits to Ireland, the Lake District, and the Channel Islands, which gave rise to notes in the 'Journal of Botany'. He became a Fellow of the Linnean Society the same year that he moved to Oxford, resigning, however, from 1915-18.

His business in Oxford flourished, and he soon began to play a prominent part in civic affairs. He was elected to the town council in 1892, Sheriff of Oxford, 1897, and Mayor in 1900. He was also an alderman and a J.P. He was President of the British Pharmaceutical Conference in 1901 (Dublin) and 1902 (Dundee).

It is chiefly by his county floras that Druce's name will be remembered. The first of these to be published separately, the 'Flora of Oxfordshire', 1886, is generally regarded as the best; a second edition appeared in 1927. Trimen and Dyer's 'Flora of Middlesex' (1869) had set a high standard of scholarship, and all county floras which have appeared since have not only followed it in general arrangement but have been judged by it. Druce's 'Flora of Oxfordshire' was very favourably received, and the University of Oxford conferred an honorary degree of M.A. on him in 1889. His 'Flora of Berkshire' appeared in 1897, his 'Flora of Buckinghamshire' in 1926, and his 'Flora of Northamptonshire' in 1930, over fifty years after his first account of the plants of his native county. Taking into consideration the tremendous labour needed to compile a county flora, Druce's work on these lines appears almost incredible.

The atmosphere of Oxford was most congenial to him in every way, and with Professor Westwood he was the founder of the Oxfordshire Natural History Society in 1880. In 1895 the appointment of Special Curator of the Fielding herbarium was approved by Convocation 'and the University has been fortunate to secure the services of so genial, devoted, and skilled a botanist as Mr. G. C. Druce, who for many years had placed his time and knowledge at the disposal of the officers of the Garden'. Two years later 'An account of the herbarium of the University of Oxford' written by Druce was published anonymously. Two other works relating to the Oxford Herbarium were published, the first edited by, the second in collaboration with, Prof. S. H. Vines—'The Dillenian Herbaria' (1908) and 'The Morisonian Herbaria' (1914). These are extremely valuable to those interested in the history of botany, and are scholarly productions.

Three other publications by Druce of more general interest are a 'New Plant List' (1908 and 1928) intended to replace the 'London Catalogue' and impose his own ideas of plant nomenclature; his revision of 'Hayward's Pocket Flora' (1909 etc.), and the 'Comital Flora of the British Isles', which appeared a few days after his death.

Druce was known best to many by his connection with the Botanical Exchange Club, of which he became Secretary and Treasurer on the resignation of C. Bailey in 1894. He soon began to infuse the Club with his personality, and it became a more flourishing concern, at least from the point of view of one of his offices. The increase in funds enabled Druce to use the annual report as a botanical journal, and from 1912 the Secretary's Report was published as a separate volume, and in it the Secretary had a free hand to give his opinion on botany and general botanical matters, which he did sometimes in a manner which was not generally approved. Amongst the honours conferred on him was the honorary D.Sc. (Oxford), Ph.D. (St. Andrews), and F.R.S.

Druce was a self-made man, remarkable for the number of his friendships. Many houses were open to him, and he took full advantage of this. He was well informed on many subjects and was a delightful companion, having a fund of story and anecdote for all occasions. It must be admitted that an excessive amount of fulsome praise had its effect on his bachelor outlook, and tended to make him too impatient of criticism, with the inevitable result that the criticisms were usually pressed home in no uncertain manner, and sometimes ended in open rupture.

I first met Dr. Druce when I was an undergraduate, and found him, as I found him to the end, a most interesting personality,—I usually contrived to have him as a neighbour at Linnean dinners.

J. RAMSBOTTOM.

PERCY GROOM (1865-1931) was born on 12 September 1865, and entered Mason College, Birmingham, as a student, passing thence to Cambridge on his election to an Exhibition at Trinity College. He obtained a second class in Pt. II of the Tripos, having taken Botany as his principal subject. Shortly afterwards he was elected to a Frank Smart Studentship in Botany at Caius College. He spent part of his time as a student at the University of Bonn, being attracted thereto by the eminent Head of the Botanical Department, Professor Strasburger, who was breaking new ground in the science, and already had collected around him an eminent group of young teachers. Amongst these was A. F. W. Schimper, with whom Groom formed an intimate friendship, and whose botanical outlook coloured the intellectual development of many of the younger botanists of that period.

Soon after the completion of his term at Cambridge Groom was appointed to the Chair of Botany and Agriculture at the Imperial University of Whampoa, in China, where he remained for three years. On his return to England, in 1892, Groom settled in Oxford, but in 1898 he accepted an invitation

by Professor Bayley Balfour to take charge of the classes in plant physiology at Edinburgh. His stay there was, however, a brief one, for in the following year he was appointed as successor to Prof. Marshall Ward at the Royal Engineering College at Cooper's Hill. Here he found himself charged with the training of students who were destined to become officers in the Indian Forestry Service, and it was to this circumstance that the direction of his subsequent botanical activities was largely due. On the closing down of the Cooper's Hill College he became head of the department of Botany at the Northern Polytechnic in London for a brief period. In 1908 he joined the staff of the Imperial College of Science and Technology at South Kensington, where he remained till his death on 16 September 1931.

His appointment, first as Assistant-Professor, and subsequently as Professor of the Technology of Woods and Fibres (1911), enabled him to follow his inclination to devote himself to this branch of applied botany on which his interest had become steadily concentrated.

He soon made himself recognized as a leading authority in this country on matters relating to the technology of timber, and his work on timber diseases met with wide appreciation amongst practical men. He served on several committees dealing with the different aspects of timber, and his knowledge of technique and the ingenuity with which he devised experimental methods of investigation, together with his skill and ability as an exponent to professional or lay audience, combined to ensure him a well deserved position as a leader in this highly technical line of work.

But his interests were not confined to technological lines alone—and the papers contributed to various scientific journals prove that he still retained the mental outlook of the student in pure science. He was a good teacher, and he inspired good research work in those senior and post-graduate students who came under his influence. He was elected to the Fellowship of the Royal Society in 1924.

For the rest, he was a loyal and agreeable colleague, always ready to lend a helping hand towards relieving the pressure of work in the growing Department of Botany in the College where he spent the last twenty-three years of his life.

J. B. FARMER.

The Rev. CHARLES OSBORNE SMEATHMAN HATTON (1872-1932), whose death took place with tragic suddenness on 19 February last, was born at Scarborough in 1872. He was the son of the Vicar of West Barkwith, Lincolnshire; his mother's maiden name was Lois Marsh. He was at school at Felstead and Stamford, and afterwards gained

an Exhibition at St. John's College, Cambridge, where he took his degree in 1894. He then took orders, held various curacies, including one at Bournemouth, and became Vicar of Hinton Admiral, Hants, in 1907. Here he remained till the end.

His scientific activities were closely connected with his own neighbourhood. He joined the Bournemouth Natural Science Society in 1914 and became one of its most active and important members. He was twice Chairman of the Botanical Section. As early as 1921 he was elected an Honorary Member (a position of distinction) and presented with a testimonial in recognition of his services to the Society. He became Honorary Curator in 1923, and in 1927 was chosen as Chairman of Council, the leading position among resident members. Both these offices he held till his death.

Mr. Hatton read a number of papers before the Society, some of which are published in its Proceedings. In his 'Notes on Field Work', of 1919, he referred to the interesting discovery of *Lobelia urens* in Hampshire, and commented on the spread of the new grass, *Spartina Townsendi*, in Poole and Christchurch harbours. His contributions (in conjunction with Mr. H. Backhouse, and in one case also with Sir Daniel Morris) on the trees in the various Bournemouth Gardens, giving the exact locality of each tree on a map, are of great service to botanists visiting Bournemouth.

Mr. Hatton was an able and active botanist, who used often to lead the excursions of his Society. His charming garden at Hinton was full of interesting shrubs and herbaceous plants, all of which he knew well and delighted to show to visitors. He was a frequent contributor to horticultural journals.

Mr. Hatton was a man of many interests. At Oxford he was distinguished as an athlete, gaining his 'blue' in Association football, tennis, and lacrosse. He kept up his lawn tennis with distinction in later life. He was also a brilliant amateur actor and much interested in theatrical matters.

As a clergyman he was of liberal and enlightened views. He was elected a Fellow of our Society in 1919.

His death is the greatest possible loss to the scientific life of his district, as the present writer, from his intimate connection with the Bournemouth Natural Science Society, can testify. But the loss is acutely felt in wider circles, for he was equally beloved by his Bournemouth friends and by his own country parishioners.

D. H. SCOTT.

HANS OSCAR JUEL died on 3 July 1931, after a brief illness. He was born in Stockholm on 17 June 1863. After being educated there he went, in 1881, to the University of Uppsala. After that he pursued his studies partly at Uppsala under Th. M. Fries and F. R. Kjellman, and partly at the University of Stockholm, where Eug. Warming was his teacher in botany. He obtained his degree as Doctor of Science at Uppsala in 1890, after disputing a zoological treatise. But botany was his main subject, and already, in 1886, he had been employed as Regnell amanuensis at the Botanical Section of the National Museum. After that he was amanuensis there (1890-2) and likewise acted as assistant at the Bergianska Botanical Garden. In 1892 he became wholly attached to the University at Uppsala, being appointed lecturer in botany. In 1902 he was elected to an extra professorship, and five years later was called to occupy the then vacant professorial chair in 'botany and practical economy', which also carried with it the prefecture of the Botanical Institute, Museum, and Gardens. This office he retained for the profit and benefit of botany until, in 1928, he retired from his professorship. He then moved to Djursholm, a suburb of Stockholm, and now had an opportunity of devoting himself entirely to botanical research. But the Fates would not allow him to labour there long for his science. Shortly after he had reached the age of sixty-eight death unexpectedly claimed him, causing a serious loss to botany and profound sorrow to his many friends.

Already at an early stage he had devoted himself to botanical research, first studying parasitic microfungi. He soon developed into a skilful microscopical technician, and in a series of papers made important and valuable contributions to the knowledge of the microfungi, especially the Uredineae. A well-known investigation in this field is his study on *Hemigaster*, which he regarded as the type of a new family.

After studying under Strasburger in 1896, and further improving his knowledge of cytological methods, he began the embryological-cytological researches which were to make his name famous. His foremost research here was that on *Antennaria alpina*. This species, so very common in the Swedish Highlands, occurs almost exclusively as female specimens, and only extremely rarely are male individuals met with. In spite of this, prolific fructification takes place. Juel investigated these conditions, solved the problem, and demonstrated the first case of parthenogenesis. His paper on the subject, published in 1900, is a classic.

In numerous papers Juel afterwards dealt with many other important problems in this field; but he was not merely

a one-sided investigator. In his cytological and embryological researches and investigations he tried to make use of the results for systematy and phylogeny, and on many occasions he made valuable contributions to this branch of research also. The two types of nuclear division-figures which he distinguished in the basidia of fungi he used for phylogenetic investigations concerning the classification of the Basidiomycetes. By his embryological researches on *Cynomorium* he ascertained its systematic position in relation to *Hippuris*, and proved that the idea of a close kinship of these types was incorrect. He made extremely important contributions towards the knowledge of the systematics of the Rosaceae by means of very extensive and carefully performed researches into the structure of the gynoeceium, and it can be maintained with good reason that his labours in this field have in many respects altered or transformed our conceptions of the phylogeny of this group.

Juel was also active in many other spheres of botany. His morphological researches on the flower of *Veronica* dealt with the tetramerous and pentamerous types of corolla from a phylogenetic point of view; and his work on the conductive tissue of *Veronica longifolia* is a sound anatomical study. For some time, in 1899, he studied under Pfeffer, at Leipzig, and as the result published a work on rheotropism. Several excellent papers published by him are also of a biological nature, particularly in respect of pollination-biology. As such may be cited his work on excitable standards, on the mechanism of the *Schizanthus*, and on the pollination of the Compositae.

As a teacher at the University of Uppsala, Juel had a great influence on the development and progress of botany in Sweden. It was he who first began to deal with actual cytological problems, and he introduced the modern working methods for their study. He formed a school of young investigators, whom he guided and indefatigably assisted and supported in their work. He made great and severe demands upon himself. Solidity and exactitude were characteristics of his methods of work, haste and superficiality were distasteful to him. He also impressed these methods on his pupils, and thus there were trained at Uppsala under his experienced leadership and guidance a generation of excellent investigators, who have done fine work in the service of cytology and embryology.

As is so often the case, even Juel's interests were in the course of years attracted to the history of science, and the Linnaean era—Linné himself and his disciples—became his principal sphere of work. The position he occupied, as Professor in Botany at the University of Uppsala and

Curator of the Linnaean traditions there, was a sacred duty to him. When the Swedish Linnaean Society was founded in 1917, at Linné's Hammarby, Juel took an active part, and he has contributed a great deal towards its development. For many years he was also Prefect of Linné's Hammarby, and looked after and cared for this memorable place and its precious collections with great piety and veneration. Amongst the numerous scientific distinctions showered upon him he appreciated in a remarkably high degree the honour of being elected a Foreign Member of the Linnean Society of London. Keenly interested in Linnaean research as he was, he entertained a great admiration for the excellent manner in which the Society preserves and cares for the Linnaean collections.

Juel devoted a great deal of work to the examination of herbaria of Linné's period which are still in existence in Sweden. In an extensive work, '*Plantae Thunbergianae*', he gave a critical list of the plants mentioned in the writings of Linné's disciple, C. P. Thunberg, and to be found in his herbarium at Uppsala. Fredrik Hasselquist, who died during a voyage of exploration to the Orient, was another of Linné's pupils to whom Juel devoted his attention. This herbarium, which is also kept at Uppsala, and Linné's relation to it, became the subject of Juel's close study. The collections which still exist from Pehr Kalm's voyages in North America, and those which were owned by Linné's intimate friend, Doctor Abraham Bäck, together with several others, have also been thoroughly studied and described by him.

Juel was of a quiet and retiring nature, and he objected strongly to all self-advertisement and blazoning abroad of his work; but any one who came into close contact with him found him to be richly endowed and a highly erudite and noble man, who venerated the science whose devoted and unselfish servant he was. ROB. E. FRIES.

ROBERT PATTERSON (1863-1931), who died on 23 October last, was born in Holywood, Co. Down, 1863, and came from a well known family of naturalists. His grandfather, Robert Patterson, F.R.S., was a noted Ulster zoologist of his day and founder of the Belfast Natural History Society. His uncle, Sir Robert Patterson, was author of several works on the natural history of Northern Ireland.

Most of Patterson's life was spent in Co. Down, where he made a special study of the birds and contributed much information on the birds of Ulster to Messrs. Ussher & Warren's '*Birds of Ireland*'. His interests, however, were not confined to ornithology, and besides acting as honorary

secretary to the Belfast Natural History and Philosophical Society and the Belfast Naturalists' Field Club, he was for some time joint editor of the 'Irish Naturalist'. He also founded the Ulster Marine Biological Association, and did good work in organizing the exploration of Larne and Belfast Loughs.

In 1904 he arranged an interesting natural history exhibit in the Peoples' Palace, Belfast, which was afterwards transferred to the Municipal Museum and Art Gallery.

Some years ago Patterson left Ireland and came to live at Surbiton, Surrey, where he took a great interest in the Kingston Public Library and Art Gallery, reorganizing the bird collection and developing an exhibit to show the birds of the Thames Valley. He also gave frequent lectures on birds to the public in his own home, and for the last year or two acted as official recorder to the Office of Works for the Royal Sanctuaries at Hampton Court and Bushey Park.

Patterson was a man of great charm, and he did much to encourage the study of natural history both in Ireland and in this country.

N. B. KINNEAR.

WILLIAM HENRY POTTS (1855-1931), who died at Innesfail, Queensland, on 10 February 1931 at the age of 76 years, was born in Northumberland. Educated in England, he came to Australia as a young man and interested himself in co-operative dairying. As chemist to the Victorian Dairymen's Association, he assisted in the development of the first system of payment by results. Later he was scientific instructor in Dairying for the Victorian Government. In 1899 he gave important service on a Royal Commission upon Technical Education in Victoria, being largely responsible for the section of the report dealing with agricultural and dairying education. It was this work that led to his appointment in 1901 to the principalship of the Hawkesbury Agricultural College, New South Wales. At the age of 47 it may be said that Potts' great life-work began. The College was eleven years old when he became its head; it was thus still in its initial stage. During his term of office the curriculum was revised and the departments re-modelled, the farm area extended, and its stud stock of sheep, cattle, horses, pigs, and poultry established. He was responsible for the establishment of the dairying school there, which has had an important influence on the dairying industry, extending far beyond the boundaries of New South Wales. The leading agriculturists in the State, whether government officials or in private enterprise in the various branches of agriculture, owe much to the training and inspiration that they received from Mr. Potts.

On his retirement in 1921 Potts had charge for a time of a training school in Norfolk for intending settlers in Australia. He then served as agricultural adviser in Malta. Deciding to return to Australia in March 1930 he was appointed Commissioner for Malta in the Commonwealth. It was when upon a journey connected with this office that he died.

Potts contributed to the various agricultural and livestock journals in Australia over a period of thirty years. His book on 'Pigs' is recognized as an authoritative work on pig raising. But his great work for agriculture in Australia undoubtedly lies in that building up of the College at Hawkesbury and in the successful careers and public service of the hundreds of students who came under his inspiration.

T. G. B. OSBORN.

Miss JOAN PROCTER (1897-1931), F.Z.S., F.L.S., D.Sc., who died on 20 September, was one of the most brilliant naturalists in Great Britain. She was born in London; her father was the son of Thomas Procter, of the Hoo, Great Gaddesdon, who was a Buckinghamshire squire; her mother was the daughter of William Brockbank, a Quaker iron-master of Manchester, who was a lover of art, a friend of the pre-Raphaelite painters, and an excellent amateur botanist and geologist. It was apparently from this side of the house that Joan inherited her scientific and artistic endowment.

Miss Procter was educated at St. Paul's School for Girls, and it was intended that she should complete her education by going to Cambridge; but her delicate health prevented this project from being fulfilled. All through her brief life she suffered from internal disorders, and was seldom completely free from physical discomfort and pain.

From her earliest years she was passionately devoted to the study of the lives of animals: she preferred a large green Dalmatian lizard as a plaything to dolls. She acquired an astonishing knowledge of the habits of our common wild animals, especially of amphibians and reptiles. She early formed the habit of going to the British Museum to get her specimens identified, and in this way she gained the friendship of Dr. G. A. Boulenger, F.R.S., the distinguished authority on reptiles. In 1917, when the Museum staff was depleted by the war, Dr. Boulenger offered her a post in the Museum, which she occupied until 1923; in fact from 1920, when Dr. Boulenger retired, until 1923 she was in entire charge of reptiles. Whilst she was in the service of the Museum she published a paper on the development of the soft-backed tortoise *Testudo loveridgei*, which in its way is a zoological classic. This extraordinary tortoise has formed the habit of

insinuating itself into crevices in rocks, and its carapace, instead of being dome-shaped, is flattened, and being flexible, was supposed to be entirely devoid of bony plates. Dr. Boulenger had mistaken another species for the young of *Testudo loveridgei*, and had stated that this species in its immature condition was like any other tortoise. Miss Procter identified the true young, in which the peculiarities of the species are already foreshadowed, and showed that in the adult stage the bony plates do not disappear, but become thinned out so as to be as flexible as paper.

In 1923, when the new aquarium in the Zoological Society's Gardens was being built, Miss Procter was employed to design the rockwork in the tanks, and she was marvellously successful in her task. So impressed were the Council of the Society with her work that when the aquarium was opened and Mr. E. Boulenger, the curator of reptiles, was appointed the first director of the aquarium, they asked Miss Procter to become curator of reptiles. In this position, which she occupied until her death, she soon made her influence felt. She roundly denounced the old reptile-house as a pest-house, and showed that there was a constant stream of disease germs carried into it by the invading vermin. She persuaded the Council to build the beautiful new house which adorns the gardens, and which may be described as vermin-proof and fool-proof. The health of the reptiles improved enormously; they became active and happy instead of passing their shortened lives in a state of semi-coma, which was too often the case in the old house. As the fame of the new house spread Miss Procter became known all over the world, and she received the compliment of an honorary D.Sc. degree from an American University.

The secret of Miss Procter's success was that she really loved animals. She regarded them not as reflex machines but as her younger brethren. The writer well remembers the alarm for Miss Procter's health that he felt when he heard that she was in the habit of sitting up all night in order to nurse some of her charges through an attack of influenza. The incident of the huge python suffering from a septic abscess by which it was being poisoned, which had to be held by fourteen men whilst Miss Procter lanced the abscess and washed it out with lysol, will long remain famous in the annals of the Society.

In these days, when zoological research is too often regarded as an affair of measuring rates of respiration or excretion, or of the determination of the response of isolated nervous and muscular tissues to stimulation, the unity of the animal as a centre of perception and feeling and purposeful activity

is apt to be lost sight of. This latter is the point of view of the true naturalist, and it is undoubtedly a nearer approach to reality than that afforded by comparative physiology.

It was a liberal education to sit beside Miss Procter and to hear her describe how, in the darkness of the night, the animals in the reptile-house talked to one another, species by species. How the alligators lifted up their voices, and then when they were silent the crocodiles took up the tale, how the fire-bellied toads exchanged the time of day with their fellows, uttering cries which were expressive neither of sexual desire nor alarm, but merely of sympathetic interest in each other.

There is an abundance of brilliant young zoologists who can investigate the comparative anatomy and development of animals, and others who can elucidate the microscopic structure of their cells, but a real naturalist like Miss Procter is a great rarity, and her premature death is an irreparable loss to zoology.

The picture of Miss Procter's life would be incomplete without a reference to the indomitable courage with which she faced the sufferings entailed by her illness. When confined to bed she issued orders by telephone for the management of the reptile-house, and the last letter which the writer received from her lamented 'the interruption to work' caused by her confinement to a French hospital for a fortnight with a temperature of 105°.

Miss Procter's heart was in research into the growth and habits of animals: she was full of sympathy and help for anyone interested in these questions. The writer will always think of her as a gracious and charming personality, and she will live in the memory of her friends as an inspiration to the true study of animals.

E. W. MACBRIDE.

GEORGE MICHAEL RYAN died on Friday, 8 January 1932. He was elected a Fellow of the Society in 1902.

[The following information has been supplied by Mr. A. G. Edie, C.I.E. :—]

'Ryan served for some time in the Provincial Forest Service of Bombay, in which he did excellent work, which was rewarded by promotion to the Imperial Forest Service of India, as a member of which he continued serving in the Bombay Presidency. He served for a long time in the very important forests of the Thana District, and in the Province of Sind, and retired in 1914 with the rank of Deputy Conservator.

'Ryan was a most energetic worker and a good disciplinarian, tactful and considerate, and extremely modest, and was liked by all with whom he came in contact. He was wonderfully kind-hearted and always ready with help and good advice for those who needed it; and his wide knowledge

of men and matters made him a most delightful companion. He was a good rider and an excellent shot.

‘He was keenly interested in all branches of forestry and had a wide and deep knowledge of all the essentials of that profession, and was a most competent officer. He was particularly interested in Botany, and his knowledge of trees and plants made him a very interesting companion in the forests. He worked hard to develop the exploitation of the minor products of the forests, such as gums, dyes, fruits, and tanning materials, and he kept up his interest in this long after he left India.

‘When I last saw him, in 1924, he hoped to go back to India to take up the manufacture of power alcohol from the fruits of *Bassia latifolia*: but he was unable to carry out this wish.

‘Latterly he made a study of the diseases of trees, and I understand he did much work in the prevention and cure of such diseases, but have no direct personal knowledge of what he did in that line.’

By the recent death of ANDREW SCOTT (1868-1931), M.Sc., A.L.S., the Society loses a member who had become distinguished amongst British zoologists for his unrivalled knowledge of species of the crustacean group Copepoda. Andrew Scott derived his early knowledge of this group from his father, Thomas Scott, who was an official of the Scottish Fishery Board. Thomas Scott was a lover of nature, and tramped the country in companionship with his boy. Father and son worked together on copepods, Andrew acquiring in this way a growing knowledge of the group, particularly by making illustrations for his father's work.

Later the boy entered Edinburgh University, where he studied Botany and Zoology, but did not obtain a degree: it is probable that his parents could not afford to keep him at the University for the full course. He was eventually trained as an analytical chemist, and worked for a short time in a sugar refinery, while continuing his work on Copepoda with his father. This continued interest in Crustacea attracted the attention of Professor W. A. Herdman, who invited him to become his assistant on the Scientific Staff of the Lancashire and Western Sea Fisheries Committee. Andrew Scott was then able to devote most of his time at Piel and Liverpool to Copepoda and other Entomostraca. He thereafter published a steady stream of work on Marine Biology, alone and in collaboration with T. Scott, J. Bennie, A. O. Walker, I. C. Thompson, and with his colleagues W. A. Herdman, J. Johnstone, H. C. Chadwick, H. M. Lewis, and W. C. Smith. By examining collections of copepods from the Atlantic, Ceylon, the Red Sea, Indian Ocean, and the

Arctic Seas he acquired a wide knowledge of the group, and was honoured by the offer of the examination and description of the copepods collected by the Dutch 'Siboga' Expedition in the East Indies. The successful completion of this great work, including the description of 83 new species with 69 plates, brought well-deserved congratulations from A. M. Norman, G. S. Brady, G. O. Sars, and W. T. Calman.

Andrew Scott also wrote a Memoir on *Lepeophtheirus* and *Lernaea* for the Liverpool Marine Biology Committee; in collaboration with his father, a Monograph on British Parasitic Copepoda, published by the Ray Society; and contributed to a valuable study on Marine Plankton with Professor J. Johnstone and H. C. Chadwick, besides describing many new genera and more than 100 new species of Copepoda. At the time of his death he was engaged in identifying Copepoda collected by S.S. *Discovery* in connexion with investigations on the bionomics of whales in the Antarctic. In such investigations Scott's wide knowledge of the group was of great value, and a gap has been created by his death which it will be difficult to fill for some time.

Andrew Scott died suddenly on 27 December at the age of 63 years. He received the honorary degree of M.Sc. from Durham University, and was proposed for membership of the Linnean Society by Professor G. B. Howes. A list of a great many of his papers and reports is published in the Index to the Trans. Liverpool Biol. Soc. vol. xlii, 1928.

J. H. ORTON.

The death from pneumonia on 17 February 1932 of Sir WILLIAM SOMERVILLE, K.B.E., LL.D. (1860-1932), removed an outstanding figure in the world of British agriculture and forestry. Born in 1860 at Cormiston, Lanarkshire, he was the only child of Robert Somerville, Laird of the Cormiston estate of 400 acres, which he inherited at the early age of 19 on the death of his father in 1879. In his earlier years Somerville gained much practical experience of farming. He was a student of the agricultural class at the University of Edinburgh, where he came particularly under the influence of Robert Wallace after this energetic young professor moved from Cirencester to Edinburgh in 1885. He graduated in 1887, taking the newly instituted degree of B.Sc. in agriculture. He then proceeded to Munich for further study, particularly in forestry, in which he received instruction from Heinrich Mayr and Robert Hartig. Returning with a Doctor's degree, he was appointed in 1889 to the newly created lectureship in forestry at Edinburgh. Two years later he moved to Newcastle-on-Tyne to fill the chair of agriculture and forestry in the Durham College of Science

(now Armstrong College), where he remained till 1899. During this period he carried out some important field experiments at different stations in the four northern counties, and particularly at the Northumberland County Agricultural Experiment Station at Cockle Park.

In 1899 Somerville was elected to the newly constituted Drapers' Professorship of Agriculture at Cambridge, where he spent two years organizing the new department. From 1901 to 1906 there was a short break in his academic career, during which he served as Assistant Secretary to the Board of Agriculture and Fisheries. The official atmosphere of Whitehall, however, did not satisfy the tastes of a man whose real bent was towards teaching and research, and whose natural outlook was towards the fields and woodlands. Accordingly in 1906 he accepted the Sibthorpe Professorship of Rural Economy at Oxford, which he held until his retirement from active work in 1926. On his relinquishing his chair the University conferred on him the title of Emeritus Professor, and the same year he received the honour of a Knighthood of the Order of the British Empire.

Somerville's agricultural work, however, was by no means confined to teaching and research: among practical farmers he established an almost unique reputation from the manner in which he applied the results of experimental work to practical conditions on his own farms. In 1911 he bought Poverty Bottom, a more or less derelict farm of 530 acres on the South Downs, the soil of which was generally considered too poor to respond to treatment. By means of a dressing of nearly the whole area with 8 cwt. an acre of high-grade basic slag he obtained strikingly successful results, and his report, issued in 1915, showed a credit balance of over £2200 in six years, after paying all charges, including rent. Shortly after the issue of his report he sold the farm at a much enhanced value.

Somerville was closely connected with the Agricultural Education Association since its foundation in 1894, and was its Chairman from 1909 to 1919 and its retiring Chairman from 1920 to 1922. But his activities and tastes were not confined to agriculture. As a forester and arboriculturist his name ranked high, and he contributed largely to forest literature, particularly in regard to insect pests and fungus diseases. He was President of the Royal English Arboricultural Society from 1900 to 1901, and again from 1922 to 1924, while he carried out the duties of Editor of the Society's Journal from 1911 till 1923. In addition he served on various forestry committees, including the Forestry Committee of 1902 and the Royal Commission on Coast Erosion and Afforestation. To his colleagues and students

alike Somerville's peculiar charm of manner made a strong appeal, and he earned the warm affection of all who came in contact with him.

R. S. TROUP.

EDWARD STEP (1855-1931). By the death of Edward Step on 8 November last the Society loses one of its most widely known Fellows, whose name is a household word in a very large circle of lovers of nature. He was a naturalist in the broadest sense, endowed with a literary faculty that enabled him to write with a simple directness that was always attractive. And so he became a kind of liaison officer who interpreted to a wider public the achievements of more strictly scientific workers. At the same time he was himself an observer of the first order, whose interest was spread over various phases of botany, as well as entomology and conchology; and to these qualifications he added an indefatigable industry, which led him to spare no pains to attain the greatest possible accuracy in all that he wrote. As a result the soundness of his work lends it a value not commonly found in popular works on Natural History.

Step was born in London on 11 November 1855. At the age of fourteen he began work with a firm of publishers, Messrs. Strahan & Co., and in a paper 'Proof Courier to Famous Men', which appeared in the 'Cornhill Magazine' for December 1922, he gives an interesting and at times amusing account of his experiences in this capacity. On one occasion, in snowy weather, he had to take proofs to Tennyson, who offered him a glass of wine to keep out the cold. As a teetotaler, young Step declined the offer but accepted coffee as an alternative—for which he received the poet's commendation. Such associations implanted a literary bias in Step in very early life, and at the same time he appears to have acquired a taste for Natural History, for in 1872 he joined the then newly formed South London Entomological Society and also the Lambeth Field Club. In 1880 he became manager to the publishing firm of Marshall, Japp, & Co., and in the same year his own first publications appeared, 'Plant Life, Popular Papers on the Phenomena of Botany', and 'Easy Lessons in Botany'. Some years later Step joined the firm of S. W. Partridge & Co., where he edited 'The British Workman', and leaving Partridge, he became associated in the nineties with Frederick Warne & Co., for whom he arranged to write special Natural History books. Shortly afterwards he left London for Portscatho, in Cornwall, where he worked for some years. What is perhaps his best-known botanical work, 'Wayside and Woodland Blossoms', was issued in 1895-6. On returning from Cornwall Step became literary adviser to the firm of F. Warne & Co., but subsequently

he joined Messrs. Hutchinson & Co., with whom he remained till the beginning of the Great War. Throughout this period, and indeed almost to the end of his life, Step was producing a continuous series of books on different branches of Natural History. His 'Wayside and Woodland Blossoms' passed through several editions, which, after the first, were illustrated from drawings by his eldest daughter. 'Wayside and Woodland Trees' (1904) is one of his most useful books, with photographs of the same individual tree of each species as seen in summer and in winter. 'Wild Flowers month by month' (1905) is another attractive work, profusely illustrated by excellent photographs of the plants *in situ*. A serviceable book on fungi is 'Toadstools and Mushrooms' (1913). In entomology Step did not confine or chiefly interest himself in Lepidoptera. He studied various groups of insects, and his 'Marvels of Insect Life' (1914), 'British Insect Life' (1921), of which a new edition has lately been issued, and 'Go to the Ant' (1924) are works by which he will be remembered. 'Shell Life' (1901) is his chief contribution to Conchology.

Step joined this Society in 1896 and was a fellow till the time of his death. He was also an almost lifelong member of the South London Entomological Society, of which he was twice President, and in whose work he always showed a lively interest, and he was President of the British Empire Naturalists' Association. Till the autumn of 1930 he was in good health and able to enjoy long Natural History rambles, in which his company was much sought. One of his greatest pleasures was to be told how a love of nature had been awakened in some younger naturalist by the perusal of his books. Step was of a modest and retiring disposition, and consistently averse to appearing as an authority in any branch of Natural History. His remains were cremated in Norwood Cemetery, where many of his naturalist friends paid their last tribute to his memory. He leaves a widow, with one son and three daughters.

H. W. PUGSLEY.

Professor ROLAND THAXTER, Foreign Member of the Linnean Society, died on 22 April 1932. By his death mycology has lost one of its foremost workers. He was born at Newton, Mass., on 28 August 1858, and graduated at Harvard University in 1882. There he continued with post-graduate studies until he was appointed mycologist at the Connecticut Experimental Station in 1888. Professor W. G. Farlow, still spoken of with deep affection by the older cryptogamists of this country, was at that time Professor of Cryptogamic Botany, and though two men could hardly be more different in their

personalities they had as a bond their devotion to taxonomic mycology. Farlow's influence is seen in the fact that Thaxter's first researches were on the rust *Gymnosporangium*.

His thesis for doctorate was his well-known monograph on 'The Entomophthorae of the United States', published in 1888, and still the standard work on the group. Farlow had suggested that a study of all the American fungi parasitic on insects promised data of sufficient interest to furnish material for a doctor's thesis; the thesis, however, had to be restricted to the Entomophthoraceae. During his three years at Connecticut his main work was necessarily concerned with phytopathology, and he published short but interesting reports on plant diseases. He continued his interest in entomogenous fungi, however, and published a short paper on the Laboulbeniales in 1890, having found several new species in the neighbourhood of New Haven.

He returned to Harvard as Assistant Professor of Cryptogamic Botany in 1891, and was then able to devote the whole of his unofficial time to taxonomy. He was an assiduous collector and had a flair for picking up 'new or peculiar' fungi; many of these he described and figured, e.g. *Sygmoidomyces*, *Myrioblepharis*, *Dispira*, *Araiospora*, *Blakeslea*, *Haplosporangium*, and the majority of these have found their way into text-books; others he kept in culture, and I understand that these are now being worked through. In 1892 he proposed a new order of Schizomycetes, the Myxobacteriaceae, for some peculiar organisms which have recently been regarded as of considerable pathological and economic importance. Another strange group which he monographed (1922) was the Endogoneae, and it may be said that, apart from his work on the Laboulbeniales, mycologists would still consider him as a noteworthy mycologist. It is, however, by his work on these fungi that his great reputation was built up, and it is inevitable that in the future his name will be as much associated with the Laboulbeniales as is that of Elias Fries with Basidiomycetes. When he began his researches these minute parasites of beetles and other insects were extremely ill-known; it is probably near the truth to say that the majority of mycologists to-day have never seen one. Saccardo's 'Sylloge Fungorum' (1887) lists only six genera and fifteen species.

After describing new species and genera in a series of notes Thaxter produced his first 'Contribution towards a monograph of the Laboulbeniaceae' in which 28 genera and 150 species were described, more than half of them collected by himself in New England. He gave an account of the morphology and development of the group which revolutionized their study, and the whole was illustrated with remarkably

clear and detailed drawings. 'The labor and time involved in obtaining and studying the several thousand specimens which have been examined in the preparation of this paper and of the accompanying plates can hardly be appreciated by anyone who has not had personal experience of the many difficulties associated with the manipulation and study of these, for the most part, very minute plants.' The fifth part of the Monograph, which appeared in 1931, unfortunately did not complete it, and Thaxter had a final part in preparation. The five parts contain 1187 octavo pages and 166 plates, each with numerous detailed figures. In this work he describes more than 100 new genera and 800 new species!

The association of Farlow and Thaxter made possible the full development of cryptogamic botany at Harvard, and mycology in particular; as a result the department is the finest of its kind. Thaxter succeeded Farlow as professor in 1901, retiring in 1919 with the title of emeritus professor and honorary curator of the Farlow Herbarium.

Though a most delightful correspondent, and always ready to give an opinion on general matters, Thaxter was not the most sociable of men, preferring to carry on with his researches rather than to attempt to orientate the general trend of American mycology. His main influence was exerted by the example of over forty years of most careful work and intense application. For a number of years he suffered from ill health, but even when he feared that he would have to stop work because of cataract his letters were always whimsical and a pleasure to receive.

He was American editor of the 'Annals of Botany' from 1907, and among other distinctions was honorary fellow of the Royal Society of Edinburgh and honorary member of the British Mycological Society.

J. RAMSBOTTOM.

The death at Kingston Hill, Surrey, on 27 March 1932, of Lt.-Col. JOHN HENRY TULL WALSH, I.M.S., in his seventy-third year, has deprived the Linnean Society of a regular attender of its meetings and of a member devoted to its interests. Born in 1859, a son of the late Rev. Thomas Harris Walsh, at one time Vicar of Riddings, Derbyshire, young Walsh, after a sound preliminary education in private schools in England and on the continent, entered the School of Medicine attached to Westminster Hospital. Here he proved a distinguished student, becoming M.R.C.S. (Eng.) in 1881, L.R.C.P. (Lond.) in 1883, and securing the first place in the examination for Surgeons on Probation, Indian Medical Service, in March 1884. When, six months later, Walsh passed out from Netley, again at the head of the list, he was gazetted Surgeon on the Bengal Establishment, and reached India in October 1884.

His period of military service was spent, during 1884-5, in the Bengal Command, and during 1885-6 with the Punjab Frontier Force: when, early in 1886, the Burmese War of 1886-9 began, Walsh was ordered to Burma on active service. Soon after the close of the first phase of the Burmese War, Walsh was transferred from military to civil duty under the Government of Bengal, in which province the remainder of his active career in India was spent. He became a Surgeon-Major in 1896 and was promoted Lt.-Col. in 1904, which rank he still held when he retired, on reaching the age of 55, early in 1914. Six months later, on the outbreak of the Great War, Walsh volunteered for active service, and was one of those who rendered invaluable service by their attention to the Indian soldiers wounded on the Western Front. In 1894 Walsh fell a victim to an attack of pneumonia, following one of malaria, which led to his being invalided to Europe for a time; in 1916 a second attack of the same malady, following one of influenza, led to his being declared unfit for further service. From the effects of this second attack Walsh's originally vigorous constitution never fully recovered; to a third attack of the same malady, which supervened on what had at first seemed a minor ailment, he fell a victim in 1932.

Walsh's personal contributions to the literature of natural history happen to be few and to have been made during a somewhat restricted period. They appeared during the years 1891-2, but are not less interesting because they were made during a period so brief. There is no indication that while at school in this country he was encouraged to give any attention to natural history, though it appears that while at school in Switzerland his interest was arrested by the account given by the late Mr. Traherne Moggridge of the habits of certain harvesting ants and trap-door spiders on the Riviera. This interest survived the far from inspiring discipline in biology imposed in London Medical Schools, and on reaching India Walsh found ample scope in Chutia Nagpur, on the North-West Frontier, and in Burma for his natural gifts as a shrewd and careful observer of animal life. But nothing during this period occurred to incite him to put on record anything he had observed.

Soon after Walsh was transferred to Bengal from Burma he was sent to act as civil surgeon at Puri in Orissa: shortly after his duties there began it was reported that Major-Gen. Sir H. Collett, K.C.B., whose distinction as a field naturalist almost equalled his eminence as a soldier, had, while commanding a column operating in the Southern Shan States, been able to report the existence of a trap-door spider in the Shan Hills. Shortly after the announcement of this discovery Walsh

was in a position to show that the same thing was equally true of Orissa.

When Walsh's temporary appointment at Puri came to an end his outstanding professional ability led to his appointment as a Resident Medical Officer in the Calcutta Presidency Hospital, and enabled him to assist the Asiatic Society of Bengal, of which he was an active member, by serving on the Council and acting for a time as its Natural History Secretary. During 1891 he contributed to the Society's Journal his account of 'A new trap-door spider from Orissa', a paper 'On the habits of certain harvesting ants', and an even more interesting one 'On certain spiders which mimic ants'. During this period, too, the Director of the Indian Museum, to whose custody was entrusted the harvest secured by Surgeon Naturalists of the Indian Marine Survey Steamer *Investigator*, succeeded in enlisting Walsh's help in identifying the Deep-Sea Holothurians collected during the seasons 1887-91. The result was the publication, in 1892, of Walsh's excellent 'List of Deep-Sea Holothurians collected during the seasons 1887-91, with descriptions of new species'.

When posted, on promotion to civil medical charges away from Calcutta, Walsh never again felt justified in writing a purely zoological paper: his subsequent scientific communications were on purely professional subjects. No useful purpose would be served by enumerating these here, though those interested in the matter may note that such of them as deal with what was then, as it is still, a matter of absorbing medical interest—the connection of mosquitoes with malaria—show in what stead Walsh's zoological knowledge stood him. This is notably the case in his paper, written during 1896-7, and published in 1897 and 1898 under the title of 'A brief historical sketch of the parasites of malaria'.

Walsh was elected a Fellow of the Society on 17 January 1895, and served on the Council during 1917-21. He was also an active member of the Zoological Society of London.

D. PRAIN.

By the death of RICHARD WETTSTEIN, Foreign Member of the Linnean Society since 1914, Botany has lost one of its most prominent modern interpreters. He was born on the 30th of June 1863 at Vienna, where he grew up, received his education, and started his scientific career. Still an undergraduate, he became in 1884 an Assistant in the Botanic Garden of the University of Vienna under Professor Kerner von Marilaun, then in 1895 obtained the degree of a Dr. Philosophiae and qualified as Privat-Dozent for Systematic Botany in 1887. Five years later, in 1892, he succeeded

Professor Moritz Willkomm in the Professorship of Systematic Botany in the German University at Prague, whence in 1899 he was called to Vienna to fill the chair, vacated by Kerner's death, and this he occupied until 1931, when on the 10th of August, after a severe illness, the germ of which he seems to have acquired when visiting Southern Africa the year before, he passed away at his country seat at Trins in Tirol.

Wettstein began his botanical training under Professor Julius Wiesner, the noted plant physiologist, in collaboration with whom he published a paper, 'Untersuchungen ü. d. Wachsthumsgesetze der Pflanzenorgane, Part I', in the 'Sitzungsberichte' of the Vienna Academy of Sciences (1883), following it up as sole author of Part II in the following year. His bent, however, was even in those early days in the direction of floristic and taxonomic botany, and the connection with Kerner, established in 1884 and made still more intimate by Wettstein's marriage to Kerner's daughter, gave him every opportunity of unfolding it. He assisted his chief in the preparation of the 'Pflanzenleben', but struck out at the same time on lines of his own. Passing over a number of smaller articles in the 'Oesterreichische Botanische Zeitung', in the publications of the Zoologisch-Botanische Gesellschaft and elsewhere, I may mention,—as the fruits of his activity up to his return to Vienna,—his monographs of *Hedraeanthus* (1887) and *Euphrasia* (1895); studies on the section *Endotricha* of *Gentiana* (1891-5); the 'Scrophulariaceae' in Engler and Prantl's 'Natürlichen Pflanzenfamilien' (1891 and 1897); highly interesting papers on *Picea omorika* (1890-1), and on *Rhododendron pontium* in the fossil state (1892); and finally a book 'Grundzüge d. Geographisch-Morphologischen Methode d. Pflanzensystematik' (1898). In 1901 Wettstein, on behalf of the Vienna Academy, led an expedition to South Brazil, some of the results of which were published by the Academy in a special volume in 1908. Already previous to his setting out for Brazil he had been engaged on the preparation of a 'Handbuch der Systematischen Botanik'. It appeared in parts from 1901 to 1908. Original in its composition, comprehensive, lucid, generously and attractively illustrated, and well supported by bibliographical references, the text-book was well received, and it carried the stimulating influence, which Wettstein, who was a born lecturer, exercised in the class-room, far beyond the bounds of his school. He added to it by the care and labour with which he remodelled the 'Oesterreichische Botanische Zeitung', of which he became the Editor in 1889. He was an indefatigable worker, a skilful organizer, persuasive in speech and manner, and a shrewd manager of men and situations.

Favoured by external circumstances he found early recognition. He became in 1900 a full member of the Academy of Sciences of Vienna, was elected President of the Association Internationale de Botanique (1905-8), and President of the Deutsche Botanische Gesellschaft (1913), and was enrolled as honorary member in a number of foreign scientific Societies, including, as already mentioned, the Linnean Society. He also had his share in the civic life of his City, which conferred on him the distinction of 'Ehrenbürger'. Death, in removing him, cut short a distinguished career, which, when his last illness seized him, was still full of promise. This made his loss doubly serious to Science, and above all to his country, to which he gave much of his best.

O. STAPP.

BENEFACTIONS

LIST in accordance with *Bye-Laws, Chap. XVII. Sect. 1, of all Donations of the amount or value of Twenty pounds and upwards, received during the past Twenty years.*

1912

The Indian Government: Contribution towards the illustration of Mr. E. P. Stebbing's paper on Himalayan *Chermes*, £46 15s. 2d.

The late Mr. Francis Tagart, £500 free of Legacy Duty.

The late Sir Joseph Dalton Hooker, O.M., G.C.S.I., £100 free of Legacy Duty.

The Trustees of the Percy Sladen Memorial Fund: Second Donation towards the publication of the fourth volume on the Indian Ocean Researches, £140.

The same: First Donation towards the fifth volume, £60.

1913

Royal Society: Grant towards Dr. R. R. Gates's paper on *Mutating Oenotheras*, £60.

Sir Frank Crisp, Bt.: Wallichian Cabinets, £50.

The Trustees of the Percy Sladen Memorial Fund: Second Donation towards the publication of the fifth volume, £200.

1914

Royal Society: Grant towards Miss Gibbs's paper on the Flora of British North Borneo, £50.

Miss Foot: Cost of illustration of her paper on *Euschistus*.

The Trustees of the Percy Sladen Memorial Fund: Third Donation towards the fifth volume, £10.

The same: First Donation towards the sixth volume, £190.

1915

The Trustees of the Percy Sladen Memorial Fund: Second Donation towards the sixth volume, £80.

Miss Foot: Cost of second paper on *Euschistus*, £32 10s.

Royal Society: Donations towards the cost of a paper by Mrs. Arber, D.Sc., £40.

The same: towards paper on Utakwa River plants by Mr. H. N. Ridley, C.M.G., F.R.S., £50.

Miss Marietta Pallis: Instalment of cost of her paper on Plav, £30.

Thomas Henry Riches, Esq.: Dr. A. R. Wallace's library on Natural History.

Sir Frank Crisp, Bt.: New shelving for Wallace's Volumes.

1916

Mr. E. Heron-Allen: Contribution to cost of paper on Foraminifera of N.W. Scotland, £44.

Messrs. H. Takeda and C. West: Contribution towards the illustration of their paper, £40.

Royal Society: Contribution towards the illustration of two papers by Prof. Dendy, £40.

The same: Contribution towards Mr. Swynnerton's paper on Form and Colouring, £70.

The High Commissioner for the Union of South Africa, per Dr. J. D. F. Gilchrist, for the illustration of his paper on *Jasus Lalandii*, £30.

Miss Marietta Pallis: Balance of cost of her paper on Plav, £90 16s. 6d.

Sir Frank Crisp, Bt.: Phototyped copy of Dioscorides from the 'Codex Anicæ Julianæ' at Vienna.

1917

British Ornithologists' Union, etc.: Contribution towards cost of Mr. H. N. Ridley's paper, £20.

The Royal Society: Second contribution towards the printing of Mr. C. F. M. Swynnerton's paper on Form and Colouring, £75.

Sir Frank Crisp, Bt.: 'Lindenia', Ghent, 1891-1901. 17 vols. sm. fol.

1919

Dr. B. Daydon Jackson: MS. index to Linnean Society's Journal, Botany, vols. xxi-xl (1884-1912) and the botanic entries in the 'Proceedings' for the same period.

1920

The Royal Society: Third contribution towards the printing of Mr. C. F. M. Swynnerton's paper as above, £50.

The High Commissioner for the Union of South Africa, for the printing of Dr. J. D. F. Gilchrist's paper on *Jasus Lalandii*, Part II, £60.

1921

- The Percy Sladen Memorial Fund : Additional Grant in aid of publication of 'Transactions', 2nd ser., Zoology, vol. xvii, part 4, £72 10s.
- The same : Grant in aid of publication of four papers on the Houtman Abrolhos Islands, £100.
- The Royal Society : Donation in aid of papers by Mr. N. E. Brown and Mr. S. L. Moore, £90.
- Dr. W. Rushton Parker : Donation of a large series of portraits of Naturalists and Persons after whom Genera have been named, and work on rearrangement and annotation of the entire collection.
- Prof. C. S. Sargent, F.M.L.S. : Eight volumes issued by the Arnold Arboretum including "The Bradley Bibliography".
- Dr. B. Daydon Jackson : MS. Catalogue of each sheet in the Linnean Herbarium ; bound in two volumes folio.

1922

- The late Sir Joseph Hooker : Donation of his Medals and Decorations. (Reversion to Linnean Society on Lady Hooker's decease.)
- Anonymous donation in aid of publication of the late Dr. E. A. Newell Arber's paper, entitled "Critical Studies of Coal-Measure Plant-impressions", £60.
- The Percy Sladen Memorial Fund : Cost of printing and illustrating 'Transactions', 2nd. ser., Zoology, vol. xviii, pt. 1.

1923

- Dr. W. Rushton Parker : (1) Donation of Oxford New English Dictionary ; vols. i-ix, vol. x in parts, 4to, 1888-1923→ (2) Encyclopædia Britannica : ed. XI, Cambridge, 1920-2. 32 vols. 4to.
- E. Heron-Allen, Esq., F.R.S. : Contribution of £25 towards the cost of paper on the Foraminifera of Lord Howe Island.

1924

- The Percy Sladen Memorial Fund : Cost of printing and illustrating 'Transactions', 2nd. ser., Zoology, vol. xviii, pt. 2.

1925

- An Anonymous Donor : New Presidential Chair, emblazoned with the Arms of the Society.

1926

Subscription portrait of Dr. B. D. Jackson, R.N.O.

Mr. A. D. Michael: A large number of Books and Pamphlets from his Library.

The late Mr. A. O. Walker: £200 free of Legacy Duty.

An Anonymous Donor: £100 to establish a Fellowship in memory of the late Prof. E. A. Minchin, F.R.S., Sec.L.S.

The Royal Society: Donation in aid of publication of Mr. G. P. Farran's paper on Biscayan Plankton.—Part 14. The Copepoda, £60.

The late Mr. Frank Morey: £100 free of Legacy Duty.

The late Mr. George Lewis: Books and pamphlets on Entomological subjects.

Capt. E. G. Spencer-Churchill: A copy of a collotype reproduction of 'The herbal of Apuleius Barbarus... (MS. Bodley 130)'.

The Percy Sladen Memorial Fund: Cost of printing and illustrating 'Transactions', 2nd ser., Zoology, vol. xix, pt. 1.

1927

The late Mrs. Mary Anne Stebbing: £100 less Legacy Duty.

1928

Carnegie United Kingdom Trust: £666 13s. 4d. for purchase of books.

The Royal Society: £160 (£85 in aid of the publication of Dr. G. Enderlein's paper on "Die Copeognathen der Seychellen", £75 in aid of Mr. C. V. B. Marquand's paper on "The Botanical Collections made by Capt. F. Kingdon Ward in the Eastern Himalaya and Tibet in 1924-5").

1929

Carnegie United Kingdom Trust: £666 13s. 4d. for purchase of books.

The Percy Sladen Memorial Fund: £100 in aid of the publication of papers on the Fauna of the Paraguayan Chaco.

Carnegie Trust for the Universities of Scotland: £28 in aid of the publication of papers on the Fauna of the Paraguayan Chaco.

1930

Carnegie United Kingdom Trust: £666 13s. 4d. for purchase of books.

An Anonymous Donor: £23 towards the purchase of an Epidiascope.

The Royal Society: £100 in aid of the publication of Mr. H. W. Pugsley's paper "A revision of the British Euphrasiae" and Dr. T. A. Sprague's paper "The Herbal of Leonhart Fuchs".

Mrs. B. Daydon Jackson (the late): valuable reversion under her Will after three life-tenants shall have died.

Mr. B. B. Woodward (the late) and Mr. A. S. Kennard: a portion of Mr. Woodward's scientific library and reversion of the remainder.

1931

Miss E. C. Hatchett Jackson: Bust of Charles Hatchett, F.L.S., by Chantrey.

Major Vivian Seymer: Volumes from the Library of Henry Seymer.

Exors. of the late Dr. E. J. Bles: Donation in aid of colour collotype plates to illustrate Dr. Karl Peter's paper on *Xenopus laevis*, £100.

Dr. Francis Pierrepont Barnard: Bequest of Sir James E. Smith's seal, his collection of seal impressions, and some portraits.

1932

Mr. Francis Druce: Donation towards the cost of new books, £50.

The Royal Society: Donation in aid of the publication of papers resulting from Dr. Worthington's Expedition to the East African Lakes, £75.

Subscription portrait of the late Professor Julius von Sachs, F.M.L.S.

Cambridge Expedition to the East African Lakes, 1930-31 (Dr. E. B. Worthington, leader).—Unexpended balance of expedition funds, for the publication of the scientific results, £175.

Carnegie Institution of Washington: Donation of a considerable number of its publications.

TREASURER'S ACCOUNTS FOR THE

(Presented at the Anniversary

*Receipts and Payments of the Linnean Society***General**

	RECEIPTS	£	s.	d.	£	s.	d.
To Balance at 1st May, 1931		645	8	7			
„ Cash in hand		12	11	0			
					657	19	7
„ Admission Fees					56	0	0
„ Arrears of Annual Contributions.....		40	0	0			
„ Annual Contributions for year.....		2484	0	0			
Do. in advance.....		120	0	0			
					2644	0	0
„ Interest on Investments (including Income Tax recovered)...					305	9	7
Do. Deposit					24	14	2
„ Sales of Publications :—							
Transactions		40	2	10			
Journals		181	19	9			
Proceedings		16	4	9			
Library Catalogue		2	18	9			
					241	6	1
„ Donations in aid of Publications					105	0	0
„ Donations for General Purposes					1	0	0
„ Miscellaneous Receipts					33	14	4
					£4069	3	9

Library

	RECEIPTS	£	s.	d.
To Balance 1st May, 1931		81	14	5
„ Interest on Investments (including Income Tax recovered)...		49	2	3
„ Transferred from General Account		400	0	0
		£530	16	8

Fellows Postal

	£	s.	d.
To Balance at 1st May, 1931	58	16	4
„ Deposits during year	11	11	10
	£70	8	2

YEAR ENDED 30 APRIL 1932.

Meeting, 24 May 1932.)

from 1 May 1931 to 30 April 1932.

Account

	PAYMENTS	£	s.	d.	£	s.	d.
By Coal, Electric Current, and Gas					86	17	10
„ Furniture					24	7	5
„ Repairs:—							
Sundry	96	1	1				
Electrical Alterations	300	0	0				
					396	1	1
„ Taxes and Insurance					59	4	1
„ Miscellaneous Printing and Stationery					139	1	7
„ Petty Expenses (including Tea and Postage)					191	14	11
„ Publications:—							
Printing	761	4	9				
Illustrations	232	7	1				
Distribution	44	16	4				
					1038	8	2
„ Salaries and Wages, etc.					1047	8	2
„ Transferred to Library Account					400	0	0
„ Zoological Record : Donation for 1931 volume .					15	0	0
„ Purchase of £121 16s. 5d. 3½ per cent. Conversion Stock (Staff Pension Fund)					100	0	0
„ Linnean Medal					15	0	0
„ Balance at 30th April, 1932	*543	17	11				
„ Cash in hand	12	2	7				
					556	0	6
* £447 required for publications already authorised.					£4069	3	9

Account

	PAYMENTS	£	s.	d.
By Books		86	7	10
„ Periodicals		338	17	6
„ Binding		98	2	6
Balance of 30th April, 1932		7	8	10
		£530	16	8

Account

	£	s.	d.
By Postages during year.....	9	15	7
„ Balance 30th April, 1932	60	12	7
	£70	8	2

Market Value,
10th April, 1932.

General Account

£	s.	d.	General Account	£	s.	d.
1000	0	0	Metropolitan 3 per cent. Stock 1941.....	@	92	0
1200	0	0	India 3 per cent. Stock	@	57	0
1000	0	0	Eastern Bengal Railway 4 per cent. Irredeemable Debenture Stock	@	73½	0
1000	0	0	Great Western Railway 4 per cent. Debenture Stock	@	83½	0
312	0	0	London Midland & Scottish Railway 4 per cent. Preference Stock	@	84½	0
33296	0	0	4½ per cent. Conversion Stock 1940-44	@	103	17
				£6676 10 5		

Library Account

<i>£</i>	<i>s.</i>	<i>d.</i>		<i>£</i>	<i>s.</i>	<i>d.</i>
450	0	0	Forth Bridge Railway 4 per cent. Stock (Bentham Bequest)			
200	0	0	4½ per cent. Conversion Stock 1940-44 (Walker and Morey Bequest)	77	½	0
580	0	0	East Indian Railway 3½ per cent. Debenture Stock (Taggart Bequest)	103	0	0
88	9	8	London County 5 per cent. Stock 1940-60 (Stebbing Bequest)	63	11	0
				92	18	1
				105		

Separate Account

$\pounds$	s.	d.		$\pounds$	s.	d.
232	5	0	Metropolitan Water Board 3 per cent. "B" Stock (Westwood Fund)	167	4	5
638	4	5	Ditto	459	10	4
142	0	0	Ditto	102	4	10
100	0	0	New South Wales 3½ per cent. Stock, 1930-50 (Trail Award Fund)	51	0	0
300	0	0	2½ per cent. Consolidated Stock (Crisp Award Fund)	182	5	0
50	0	0	4 per cent. Victory Bonds (Westwood Fund)	60½	0	0
50	0	0	Ditto	98½	4	5
100	0	0	Ditto	98½	0	0
100	0	0	London County 5 per cent. Stock 1940-60 (Minchin Fellowship Fund)	105	0	0
585	16	9	3½ per cent. Conversion Stock (Staff Pension Fund)	496	9	11
			(£8 15s. 6d. Ditto, to be transferred on 1st May, 1932.)			

FRANCIS DRUCE, *Treasurer.*

We have (in conjunction with the Professional Auditor, who certifies as to all details) audited the Accounts of the Society for the year ended 30th April, 1932, and found them correct. We have verified the Investments and Bank Balances.

Dated this 13th May, 1932.

W. B. KEEN, Chartered Accountant.

F. E. WEISS,
PHILIPPA C. ESDAILE,
R. H. BURNE,
H. W. PUGSLEY,
I. HENRY BURKILL,
J. RAMSBOTTOM.

ADDITIONS AND DONATIONS

TO THE

LIBRARY

1931-32

Note.—Separate copies of papers which are included in periodicals received by the Library are no longer catalogued. Names of donors are given in square brackets. The sizes are given in centimetres,—to the nearest centimetre.

-
- Acta Societatis Biologiae Latviae.** Vol. ii. *Riga*, 1931. 26 × 17.
- Adams, J.** A Student's Illustrated Irish Flora... *Ashford, Kent*, 1931. 18 × 12. [L. REEVE & Co., LTD.]
- Alaejos, L.** La pesca marítima en le puerta de Santanda. *Notas y Resúmenes*, ii, 56, 1931. [INST. ESPAÑOL OCEANOGR.]
- Aldrich, J. M.** Notes on synonymy of Diptera. No. 3. *Proc. Entomol. Soc. Washington*, vol. 31, 2, 1929. [AUTHOR.]
- No. 4. *Proc. Entomol. Soc. Washington*, Vol. 32, 2, 1930. [AUTHOR.]
- Animalia Fennica.** I. Hymenoptera Aculeata: Sphecidae. *Helsinki*, [1931]. 18 × 12.
- Annuaire du Conservatoire et du Jardin botaniques de Genève.** 1^{re} année → *Genève*, 1897 → 24 × 16.
- Anthony, R., & Coupin, F.** Recherches anatomiques sur le vestibule de l'appareil respiratoire du Mesoplodon. *Mem. Inst. Español Oceanogr.* xiv, 1930. [INST. ESPAÑOL OCEANOGR.]
- Arrow, G. J.** Fauna of British India. Coleoptera: Lamellicornia, Part iii. *London*, 1931. 23 × 16. [SECRETARY OF STATE FOR INDIA.]
- Artist's Vade Mecum**, being the whole Art of Drawing... *London*, *R. Sayer*, 1762. 30 × 23. [Major VIVIAN SEYMER.]
- Bartram, J.** An account of the 200th Anniversary of the founding of the First Botanic Garden in the American Colonies by J. B. *Bartonia*, Suppl. to No. 12. *Philadelphia*, 1931.
- Bericht über das geobotanische forschungs-Institut Rübel in Zürich**, 1929-30 → *Zürich*, 1931 → 22 × 15.
- Berkson, J.** Evidence of a seasonal cycle in human growth. *Human Biology*, ii, 4, 1930. [AUTHOR.]
- Bonaparte, R. N.** Notes ptéridologiques... publiée et augmentée par C. Christensen; xvi, Fougères de Madagascar. *Paris*, 1925. 22 × 14. [Dr. C. CHRISTENSEN.]
- Börjesen, F.** Sur Platysiphonia nov. gen.... *Lab. Crypt. Mus. Nat. d'Hist. Nat.*, Sept. 1931. [AUTHOR.]
- Boulger, G. S.** See Britten, J.
- Briquet, J.** In Memoriam!... Oct. 28, 1931. [Madame J. BRIQUET.]

British Museum (Natural History).

- Illustrated Guide . . . *London*, 1931. 19 × 12. [TRUSTEES, BRIT. MUS.]
- Summary Guide . . . Ed. 4. *London*, 1931. 21 × 14. [TRUSTEES, BRIT. MUS.]
- Mosquitoes . . . by F. W. Edwards. Ed. 4. Economic Series, No. 4. *London*, 1931. 21 × 14. [TRUSTEES, BRIT. MUS.]
- Rats & Mice . . . by M. A. C. Hinton. Ed. 3. Economic Series, No. 8. *London*, 1931. 22 × 14. [TRUSTEES, BRIT. MUS.]
- A short history of the Collections. Special Guide, No. 9. *London*, 1931. 22 × 14. [TRUSTEES, BRIT. MUS.]
- Guide . . . early history of Palaeontology. Special Guide, No. 8. *London*, 1931. 22 × 14. [TRUSTEES, BRIT. MUS.]
- Britten, J., & Boulger, G. S. A Biographical Index of deceased British and Irish Botanists. Ed. 2. Revised . . . by A. B. Rendle. *London*, 1931. 22 × 15. [A. B. RENDLE.]
- Brooks, F. T., & Chipp, T. F., edited by. Fifth International Botanical Congress, 1930. Report of Proceedings. *Cambridge*, 1931. 22 × 14. [F. T. BROOKS.]
- Brown, N. E., Tischer, A., & Karsten, M. C. Mesembryanthema . . . Edited by E. J. Labarre. *Ashford, Kent*, 1931. 25 × 19. [L. REEVE & CO., LTD.]
- Buller, A. H. R. Researches on Fungi. Vol. iv. *London*, 1931. 24 × 16. [J. RAMSBOTTOM.]
- Bulletin de la Société Royale des Sciences de Liège. 1^{re} année → Jan. 1932 → *Bruxelles*. 25 × 16.
- Burton, M. See Vosmaer, G. C.
- Butler, E. G. The thyroid and the rate of cell-division. *Proc. Soc. Exp. Biol. & Med.* xxvi, 1928. [AUTHOR.]
- Cameron, M. Fauna of British India. Coleoptera: Staphylinidae. Vol. iii. *London*, 1932. 23 × 16. [SECRETARY OF STATE FOR INDIA.]
- Caullery, M. Le Problème de l'Évolution. *Paris*, 1931. 22 × 14. [AUTHOR.]
- Chalk, J., Davy, J. B., & Desch, H. E. Some East African Coniferae and Leguminosae. *Forest Trees & Timbers of the British Empire*, 1. *Oxford*, 1932. 24 × 15. [IMP. FOR. INST., OXFORD.]
- Chapman, F. A report on samples obtained by boring into Michaelmas Reef . . . *Reports Barrier Reef Comm.* [n. d.]. [AUTHOR.]
- Chipp, T. F. See Brooks, F. T.
- Christensen, C. Revised list of Hawaiian Pteridophyta. *Bernice P. Bishop Mus. Bull.* 25, 1925. [AUTHOR.]
- Pteridophyta. Plantae Sinenses, iii. *Medd. Göteborgs Bot. Trädgård* 1, 1924. [AUTHOR.]
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- See Bonaparte, R. N.
- Collin, J. E. Platypezidae, Pipunculidae. Diptera of Patagonia . . . Vol. vi, 2. *London*, 1931. 21 × 14. [TRUSTEES, BRIT. MUS.]
- Correns, C. Über einige Fälle von Buntblättrigkeit. *Zeitschr. für . . . induktive Abstammungs- und Vererbungslehre*, lix, 1931. [AUTHOR.]
- Cresson, E. T. Ephydriidae: Diptera of Patagonia—Vol. vi. 2. *London*, 1931. 21 × 14. [TRUSTEES, BRIT. MUS.]
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- Curtis's Botanical Magazine.** Dedications 1827-1927 . . . compiled by E. Nelmes & W. Cuthbertson. *London* [1931]. 25 × 15. [G. W. E. LODER.]
- Cuthbertson, W.** See **Curtis's Bot. Mag.**
- Davy, J. Burtt.** See **Chalk, J.**
- de Buen, F.** *Lebetus Whinter*, 1877, *Odondebuenia* nov. gen. y *Cabotia* nov. gen. (Gobiidae de Europe). *Trab. 5, Inst. Español Oceanogr.* 1930. [INST. ESPAÑOL OCEANOGR.]
- *Notas sobre la fauna ictiológica de nuestras aguas dulces. Notas y Resúmenes*, ii, 46, 1930. [INST. ESPAÑOL OCEANOGR.]
- *Carta de pesca de Marruecos mediterráneo. Mem. Inst. Español Oceanogr.* xv, 1931. [INST. ESPAÑOL OCEANOGR.]
- *Notas a la familia Gobiidae . . . de las especies Ibericas. Notas y Resúmenes*, ii, 54, 1931. [INST. ESPAÑOL OCEANOGR.]
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